

Mining Management Exploration Activities

Northern Territory of Australia – Mining Management Act 2001

It is recommended that the Mining Management Plan (MMP) is completed in conjunction with the user guide available on the [Northern Territory Government website](#).

Section 1 – Project Details

Project Name Provide new or existing project name	Asian Minerals Pty Ltd East Tanami Project Access Tracks and Drilling 2023
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Authorisation Number	1080-01
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Operator Name	Asian Minerals Pty Ltd
Operator ABN and ACN numbers	ABN 17 099 804 467 ACN 099 804 467

Location and Access Details Include brief description of the location, access details, and distance to nearest town or community	The area is located on Karlantijpa North Aboriginal Land Trust land, centred about 100km west of Renner Springs. Access is via 99.64km of tracks within the Powell Creek pastoral lease, part of Consolidated Pastoral Co. (CPC) holdings. The turnoff is 65km south of Elliott. This route has been authorised with CPC. This follows a well-formed and maintained route for 53.4km from the Stuart Highway to the North Australian Railway, then generally SSE for 13.8km along the access track to the east of the railway, to an existing crossing of the railway on the boundary between Powell Creek PL and Muckaty ALT, thence along that boundary for 4km, to the north-west corner of Muckaty ALT, thence along the boundary between Powell Creek PL and the Karlantijpa North ALT, within a route that has received a Sacred Site Clearance Certificate No C2021-132 from CLC dated 13 September 2021, first along the southern side of the southern boundary of Powell Creek for a further 28.8km, thence along a continuation of that east- west line for a further 2km, thence generally west-southwest, south west, west and north for a distance of 56km within the area specified in the Clearance Certificate and depicted on the provided maps.
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Target Commodity Details Include target mineral commodities (i.e. gold, copper etc.)	Nickel, copper and diamonds.
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<p>Mining Activities Summarise the mining activities (exploration) to be the subject of the proposed Authorisation or Variation.</p> <p>Drilling programs over a maximum of four years are supported and encouraged and can be staged. Please refer to the guidelines for further information.</p>	<p>The blade-up access track was completed in 2021. We now propose to upgrade the track by grading, compacting, installing drainage, and improving creek crossings through minor earth works. This work is in line with requests received from Traditional Owners. We also propose a two-stage drilling program. This requires an extension of the access track to reach the Diatreme/ Renehan Structure Prospect, which will require a further 23km of graded track. We propose a 50-hole air core program, which will require 30km of blade-up cleared north-south and east-west drill lines, and two follow-up diamond drill holes with pads and sumps. Additionally, two water bores are proposed, one in the vicinity of the prospect and one about 19km from the southwest corner of Powell Creek PL.</p>
<p>Proposed Schedule Include start and finish dates of ground disturbing work</p>	<p>Access track upgrades would commence as soon as the MMP is Authorised, but the Aircore Drilling is scheduled for early August. These works are to be completed by end September 2023. Depending on results, diamond core drilling will be scheduled for later in the 2023 season, or in 2024.</p>

Mining Interest and Land Ownership

List the mining interests (titles), the title holder name/s, the title expiry date and the Property name/Land holder (e.g. pastoralist or Aboriginal land trust) for each title.

Title Number	Title Holder	Expiry Date	Underlying Property Name or Land Holder
EL23602	Asian Minerals Pty Ltd	06Mar 2024	Karlantijpa North ALT
EL23603	Asian Minerals Pty Ltd	06Mar 2024	Karlantijpa North ALT
EL23780	Asian Minerals Pty Ltd	07Mar 2024	Karlantijpa North ALT
EL31757	Asian Minerals Pty Ltd	07Mar 2024	Karlantijpa North ALT
EL31758	Asian Minerals Pty Ltd	08Mar 2024	Karlantijpa North ALT
EL31759	Asian Minerals Pty Ltd	08Mar 2024	Karlantijpa North ALT

Delete or add rows as required

Please note a Land Access Agreement (LAA) is required for disturbance proposed on Pastoral Properties on Exploration Licence (EL). **(Access to the project area is across Powell Creek pastoral lease and an agreed route and access terms has been reached with the pastoral Land Manager. There will be no disturbance or exploration on the PL and a LAA with the PL is not required for this MMP).**

Organisational Structure

Position Title	Name

Managing Director	Geoffrey Eupene will manage Asian Minerals' activities under this MMP for access track clearing for mineral exploration. Work will be conducted by a contractor under his supervision, with assistance from TOs and CLC.
Project Geologist	Lachlan Hallett, who has 15 years' experience in NT Geological work, will supervise field work.

Section 2 – Operator Self-Assessment of the Environmental Risk

The purpose of this self-assessment is to ensure Operators complete a project risk assessment of potential environmental impacts and are aware of other legislative obligations from various Agencies. As a result of this self-assessment, further information may be required in the form of a management plan to enable full assessment of the MMP. If you have any queries please contact a Mining Officer prior to submitting the MMP. Useful resources to assist with this self-assessment are provided in the User Guide.

Environmental considerations

ASSESSMENT ASPECT	YES or NO	ACTIONS REQUIRED (if answered YES)	APPENDED INFORMATION (e.g. evidence of consultation with DEPWS and/or management plan where required).
Step 1: Are there any threatened flora and fauna species or habitats of significance that may occur in the proposed work area?	Yes	The Operator discussed the project and the relevant threatened species records with DEPWS officers, who have outlined what management procedures are required to protect the species identified. These have been documented in Appendix1: East Tanami ELs Threatened Species Analysis 2021, which has been reviewed by the Development Assessment Coordinator, Flora and Fauna Division. After site visits for field work in 2021 we believe that these actions continue to be appropriate. Discussions in 2023 with the project officer with Territory Natural Resource Management responsible for their Greater Bilby project indicate our procedures are appropriate and that the access track/firebreak may preserve important unburnt pockets of vegetation in the event of large fires.	Appendix1: East Tanami ELs Threatened Species Analysis 2021.
Step 2: Are there any known declared weeds within the proposed work area?	No	Seek advice from DEPWS – Weed Management Branch to determine if weeds are present on site and ensure management measures are appropriate for the level of activity proposed and attach a Weed Management Plan (if required). No weeds were observed during field work in 2021.	Weed Management Officer, Tennant Creek was contacted on 7May2021. Weeds are unlikely in the Project Area. His comments and relevant guides are included in Appendix 2: East Tanami ELs Weeds advice, 2021.

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ASSESSMENT ASPECT	YES or NO	ACTIONS REQUIRED (if answered YES)	APPENDED INFORMATION (e.g. evidence of consultation with DEPWS and/or management plan where required).
Step 3: Will you be using water from bores or other sources for the operation?	Yes	Water related matters on mineral titles are no longer exempt from the <i>Water Act 1992</i> . Please consult with DEPWS Water Resources and/or familiarise yourself with the <i>Water Act</i> to ensure compliance under this Act when undertaking exploration activities.	A meeting was held with the Water Resources Division to discuss how new regulations affected mineral exploration activities generally on 23 March 2023. From that and supplied documentation, this specific circumstance requires a Bore Work Permit for each title on which bores are to be drilled. An application for a Bore Work Permit for each of the 2 bores planned has been submitted to Water Licensing and a copy is attached as Appendix 3 . The driller will hold a Class 1 Water Bore Licence.

Environmental assessment and cultural considerations

ASSESSMENT ASPECT	YES or NO	MANAGEMENT REQUIREMENTS
Step 4: Is your project likely to have a significant impact on the environment?	No	Refer to the NTEPA Environmental Factors and Objectives Guideline.
Step 5: Are there Aboriginal sacred sites in the Project area?	No	An extensive helicopter assisted sacred sites survey has been undertaken in September 2020 and a certificate specifically covering this project has been issued by CLC on 1 April 2021. After Authorisation 1080-01 was issued in 2021, the access track described therein was constructed and CLC issued a new SSCC, 2021-0132, to cover the track and reconnaissance activities in the prospect area, including the construction of graded firebreaks. An upgraded SSCC has been applied for in early April to cover the drill pads and cleared lines. Asian Minerals will work closely with CLC on the execution of this project. Asian Minerals are aware of the Sacred Site requirements and have discussed the project with AAPA.

Step 6: Are there archaeological and heritage sites in the Project area?	No	<p>Heritage and archaeology sites are protected in the NT. NT Department of Territory Families, Housing and Communities (DTFHC) administers the Heritage Act 2011.</p> <p>Asian Minerals are aware of the requirements and have discussed the project with DTFHC.</p> <p>No habitation is known to have occurred in the area.</p>
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Section 3 – Amendments

As per Section 41(3) of the *Mining Management Act*, an MMP reviewed and amended under Section 41(1)(a) is to have amendments made since the previous MMP submission clearly identified.

Section	Amendment
1	Project name updated
1	Added Authorisation Number from 2021 Authorisation
1	Modified Access description to reflect updated CLC SSSC.
1	Target commodity added and mining activities updated
1	Proposed schedule updated
1	Expiry dates on EL titles corrected
1	Role of Geoff Eupene updated New employee added
2	Threatened species actions updated to include new information
2	Weeds actions updated to include new information, removed names of NTG employees
2	Waterbore actions updated to reflect intention to drill waterbores
2	Aboriginal sacred site and heritage information updated
3	Amendments added
4	Table significantly changed to include new planned activities and to remove previously proposed activities which have now occurred
5	Previous disturbance spreadsheet completed and attached to MMP
6	Updated 6.1, 6.7, 6.8, 6.9, 6.10, and 6.18 to reflect new proposed activities
6	Justification significantly changed due to new proposed activities
7	Updated 7.1, 7.2, 7.3, 7.4, 7.5 and 7.6 to reflect new proposed activities
8	Updated 8.5, 8.6 and 8.8 to reflect new attachments
Footer	Footer updated to reflect new page count
Attachments & Appendices	Updated attachments to reflect new proposed activities and new information. Added attachments 8.5 and 8.6 Added Appendix 3 Removed names of NTG employees Clarified that both the Flora and Fauna Division of DEPWS and the Night Parrot Recovery Team are notified in the event night parrots are encountered

Delete or add rows as required

Section 4 – Activities Proposed for this MMP only

Provide relevant EL numbers

Mining Interests (i.e. titles)	EL23602	EL23603	EL23780	EL31757	EL31758	EL31759
Number and type of proposed exploration drill holes	0 (only 1 waterbore)	NA	NA	NA	NA	50 aircore, some with RC tails; 1 waterbore 2 Diamond holes
Maximum depth of proposed holes (m)	120m	NA	NA	NA	NA	Air Core: 120m Diamond holes: 350 m
Number and size of drill pads to be cleared (Length: m x Width: m)	No additional clearing, waterbore will use existing natural open space	NA	NA	NA	NA	50 aircore holes to be drilled into line clearing footprint and won't require additional clearing 2 Diamond holes (15x15m each)
Total area of drill pads to be cleared (ha)	NA	NA	NA	NA	NA	0.045 ha
Number of proposed water bores	1	NA	NA	NA	NA	1 waterbore
Is drilling likely to encounter groundwater in multiple or confined aquifers? (Y, N, unsure) If answering yes, please provide the number of exploration holes where this is likely to occur	N	NA	NA	NA	NA	N
Number of costeans	NA	NA	NA	NA	NA	NA
Volume to backfill costeans (Length: m x Width: m x Depth: m)	NA	NA	NA	NA	NA	NA
Number of bulk sample pits	NA	NA	NA	NA	NA	NA
Volume to backfill bulk sample pits (Length: m x Width: m x Depth: m)	NA	NA	NA	NA	NA	NA
Bulk sample pits approved under <i>Mineral Titles Act</i> ? (Y or N). If Yes provide approval	NA	NA	NA	NA	NA	NA
Line/track clearing: (length m x width m)						50,735x6

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Mining Interests (i.e. titles)	EL23602	EL23603	EL23780	EL31757	EL31758	EL31759
Area of proposed line/track clearing (ha)						30.4
Camp area to be cleared (ha) maximum estimate	1					2
Camp Infrastructure (i.e. demountable, tents) Please provide a complete list with measurements as required in the security calculation	No infrastructure currently planned, with the possibility of a flying tent camp if required by CLC					Tents, tables, chairs and tarps. Camp likely to be used for 3 months cumulatively per year. Drillers may bring caravans to the camp.
Other						
Total proposed area of disturbance (ha)	1					32.4

Staging approach based on disturbance can be proposed and will be considered by the Department.

Additional information:

Diamond drillholes to be drilled from main access track, limiting the disturbance caused by the passage of the diamond drilling rig

Section 5 – Previous Disturbance (for existing Authorisations only)

The 'Disturbance Tracking' spreadsheet must be completed and attached to the MMP submission to complete this section. The spreadsheet is available on the departmental web page where this template is located.

Section 6 – Environmental Management

By checking these shaded boxes, you are agreeing to implement the following minimum environmental management standards on the project area. Where boxes have been left unchecked, justification is required.

6.1	Partially	Blade-up approach for clearing will be used (i.e. no windrows, leave root stock and topsoil)
6.2	<input checked="" type="checkbox"/>	Significant vegetation will be avoided during clearing (i.e. large trees, specimens providing habitat or food sources, riparian vegetation, and threatened species)
6.3	<input checked="" type="checkbox"/>	Vegetation clearing during, and immediately after rainfall events, will be avoided
6.4	<input checked="" type="checkbox"/>	Vegetation clearing will be kept to the minimum required to safely traverse vehicles and drill rigs along tracks and drill pads
6.5	<input checked="" type="checkbox"/>	Where blade-up techniques cannot be employed, topsoil and vegetation will be stockpiled appropriately for rehabilitation purposes
6.6	<input checked="" type="checkbox"/>	All employees and contractors will be trained and inducted in relation to the management of environmental risks in the work area, including weeds, waterways, threatened species, soil erosion, sacred sites and heritage areas
6.7	<input checked="" type="checkbox"/>	Sumps will be lined or tanks of appropriate size to contain water, sediment and drilling fluids encountered during drilling, will be used
6.8	<input checked="" type="checkbox"/>	Sumps, drill holes, and fuel stores will be located away from environmentally significant areas and water courses
6.9	<input checked="" type="checkbox"/>	Excavations (sumps, costeans and pits) will be appropriately ramped to allow fauna egress
6.10	<input checked="" type="checkbox"/>	Drill holes will be securely capped immediately after drilling
6.11	<input checked="" type="checkbox"/>	Vehicle hygiene measures will be employed to prevent the introduction and spread of invasive species and pathogens when mobilising vehicles and equipment from one location to another
6.12	<input checked="" type="checkbox"/>	Hydrocarbon spills will be minimised using liners and drip trays under machinery, and appropriately sized spill-kits available in the event of a spill
6.13	<input checked="" type="checkbox"/>	Hazardous substances (including hydrocarbons) will be stored and handled in accordance with relevant Australian Standards
6.14	<input checked="" type="checkbox"/>	Hydrocarbons will be stored in lined and bunded areas
6.15	<input checked="" type="checkbox"/>	Waste will be stored securely while on-site to minimise windblown rubbish and access by feral animals
6.16	<input checked="" type="checkbox"/>	Waste will be removed off-site and disposed of at an appropriate waste management facility
6.17	<input checked="" type="checkbox"/>	All environmental incidents will be reported to the Department in accordance with Section 29 of the <i>Mining Management Act</i> .
6.18	<input checked="" type="checkbox"/>	Acid and Metalliferous Drainage (AMD) and Potentially Acid Forming (PAF) material derived from drilling cuts will be managed to avoid AMD and PAF related issues on site.

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6.19	NA	Radioactive/NORM drill cuttings will be managed to avoid radiation related issues on site.
6.20	<input checked="" type="checkbox"/>	Dust management will be implemented on site.

Justification and alternative management measures:

Blade-up clearing will be done for the 29,897 m of drilling access lines and drill pads. These tracks would be rehabilitated unless a written request is received from Landowners to leave them open.

20,838 m of new graded track to be constructed linking the drilling area to the existing 2021 track. We anticipate that this track would be seen as an asset to the local communities, and if a written request is provided, it could be excluded from rehabilitation requirements in the MMP. The TOs have indicated their intention to use the access to conduct fire management activities on their traditional lands and that this work will make accessible for we believe the first time in living memory. We expect that TOs and CLC Officers would accompany the loader during installation of the track.

We believe authorisation for the construction of the graded tracks and camp clearings has already been addressed in SSCC No.C2021-132. However the new blade up clearing and drill pads needs new clearance.

TOs have made some specific requests re avoidance of mature Desert Walnut trees. The tracks have been constructed within a 100m wide corridor as approved in the Site Clearance Certificate provided by CLC and will be dealt with on site in conjunction with TOs. Flora and Fauna Division of DEPWS have also requested avoidance of fresh burrows and large clumps of spinifex for wildlife conservation.

Scouting of these will be organised with TOs that join the expedition. It is planned to camp along the route as it advances, carrying enough water and supplies to do so. At the end of each day's work the loader will clear a campsite that allows a campfire to be built and that provides some safety from bushfires.

Section 7 – Rehabilitation and Closure

By checking these shaded boxes, you are agreeing to implement the following minimum rehabilitation standards on the project area. Where boxes have been left unchecked, justification is required.

A refund of security related to completed rehabilitation on site requires the submission of a rehabilitation report including photographs, an updated security calculation and updated disturbance tracking spreadsheet to the Department.

7.1	<input checked="" type="checkbox"/>	Drill holes will be plugged below ground level at a minimum depth of 0.4 metres and soil mounded to prevent subsidence, within 6 months of completion of drilling.
7.2	<input checked="" type="checkbox"/>	Drill holes encountering multiple or confined aquifers will be grouted with concrete.
7.3	<input checked="" type="checkbox"/>	Drill samples/spoil will be returned down drill holes, buried in sumps, or removed from site.
7.4	<input checked="" type="checkbox"/>	All drill hole and access markers including flagging tape, wooden markers and star pickets will be removed from site.
7.5	<input checked="" type="checkbox"/>	Cut and fill drill pads will be re-contoured to be consistent with the surrounding terrain.
7.6	<input checked="" type="checkbox"/>	Drill pads and compacted areas along the contour (on sloping ground) will be ripped/scarified of and tracks will be cross-ripped (zig-zag).
7.7	<input checked="" type="checkbox"/>	Tracks will be rehabilitated, including pushing in all windrows, unless otherwise agreed in writing by the land holder or appropriate third party.
7.8	<input checked="" type="checkbox"/>	Appropriate erosion and sediment controls will be installed where erosion is evident or likely to occur.
7.10	<input checked="" type="checkbox"/>	Access through watercourses will be removed and banks restored.
7.11	<input checked="" type="checkbox"/>	All previously disturbed areas will be stable, with no evidence of active soil erosion.
7.12	<input checked="" type="checkbox"/>	All excavations will be backfilled within 6 months of their completion.
7.13	<input checked="" type="checkbox"/>	All water bores will be decommissioned unless otherwise agreed in writing by the land holder or appropriate third party.
7.14	<input checked="" type="checkbox"/>	All rubbish and infrastructure will be removed from site.
7.15	<input checked="" type="checkbox"/>	Topsoil will be replaced and vegetation re-established.
7.16	<input checked="" type="checkbox"/>	Contaminated soils (e.g. hydrocarbon or hazardous chemicals) will be rehabilitated or removed from site.
7.17	<input checked="" type="checkbox"/> *	Monitoring will be undertaken following the wet season or a significant rainfall event.

Justification and alternative management measures:

****Subject to TO and CLC agreement regarding access.***

Section 8 – Required Attachments

8.1	NA	Initial Application for Authorisation or variation of Authorisation (only if details on the form have subsequently changed).
8.2	NA	Nomination of Operator Form, where required
8.3	<input checked="" type="checkbox"/>	Security Calculation Spreadsheet
8.4	NA	Evidence of Land Access Agreement if operating on an Exploration Licence (EL) on Pastoral Lease (e.g. two-ways exchange of email)
8.5	<input checked="" type="checkbox"/>	Disturbance tracking spreadsheet (for existing Authorisations)
8.6	<input checked="" type="checkbox"/>	Spreadsheet with coordinates of proposed drill holes or polygons of target areas
8.7	<input checked="" type="checkbox"/>	KML/shape files/track logs of proposed tracks, camp sites and proposed drill holes or polygons of target areas
8.8	<input checked="" type="checkbox"/>	Map(s) of the work area(s) showing: <ul style="list-style-type: none"> 1. title boundaries and title numbers 2. current and proposed drill holes, or polygons of target areas 3. current and proposed tracks 4. rehabilitated areas 5. camp sites 6. heritage sites or significant environmental areas 7. environmental constraints
8.10	NA	Radiation Management Plan (if applicable)
8.12		Document(s) being appended in relation to Section 2 (if any): <ul style="list-style-type: none"> - Appendix1: East Tanami ELs Threatened Species Analysis 2021. - Appendix2: East Tanami ELs Weeds Advice, 2021. - Appendix3: Application for Bore Work Permit